

APPLICANT(S): PERETS, Yona et al.
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AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
8. (Cancelled)
9. (Cancelled)
10. (Cancelled)
11. (Cancelled)

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12. (Currently Amended) A method comprising:

grouping symbols of two or more received multipath components of a received baseband signal in two or more groups to detect a desired symbol, wherein, the grouping is based on a delay spread between the two or more components, wherein grouping symbols comprises grouping symbols within a first delay spread range in a first group, and grouping symbols within a second delay spread range in a second group; and

processing said desired symbol in the two or more groups of symbols of the multipath components by positioning two or more processing windows around the desired symbol within the two or more groups, respectively, wherein processing said desired symbol comprises:

fragmenting the desired symbol into at least first and second fragments,
adaptively positioning the first processing window to encompass the first fragment
and the second processing window to encompass the second fragment,
applying first and second processing windows to the first and second groups,
respectively, and
combining soft outputs of the first and second processing windows into a desired
output related to a detected symbol.

13. (Cancelled)

14. (Original) The method of claim 12 comprising:

processing samples of the received baseband signal in the group by minimum mean squared error multiuser detection.

15. (Cancelled)

16. (Previously Presented) The method of claim 12, comprising:

decoding by a processing window the desired symbol within first and second groups;
delaying a first processing result of the first group and a second processing results of the second group; and

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combining the first processing result with the second processing result.

17. (Currently Amended) The method of claim [[15]] 12 comprising:

assigning first and second window lengths to the first and second processing windows, respectively.

18. (Currently Amended) The method of claim [[15]] 12 comprising overlapping the first and second processing windows.

19. (Currently Amended) The method of claim [[15]] 12 comprising:

adaptively positioning the first or the second processing windows to encompass the desired symbol based on a communication system parameter.

20. (Cancelled)

21. (Previously Presented) The method of claim 12 comprising:

processing the desired symbol by applying to the symbols of the two or more received multipath components of the baseband signal at least one processing window to process the desired symbol in one group and at least one other processing window to process the desired symbol in two or more groups.

22. – 37. (Cancelled)